



Fall Prevention

Mary Borges

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PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER COMMUNITY



What is Healthy Aging ?

AKA Falls Prevention

**Living a long, productive
meaningful life and enjoying a
high quality of life.**

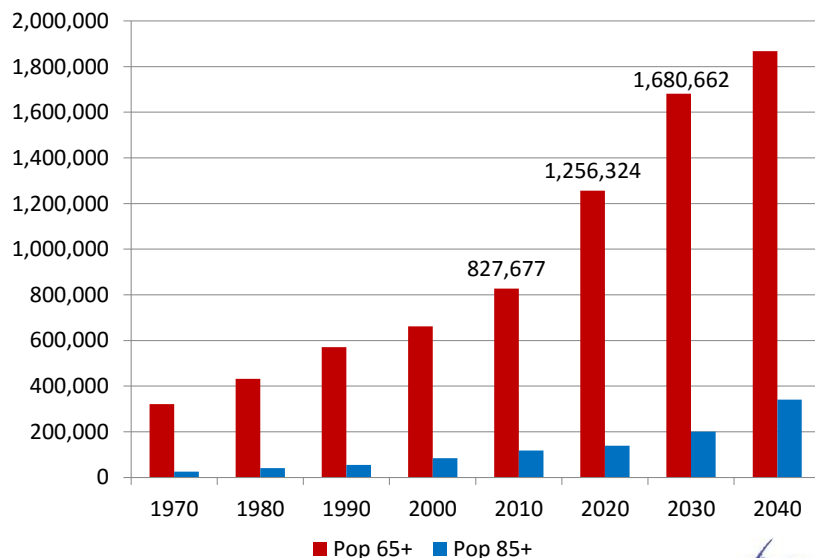


Presentation Overview

- Prevalence of Falls
- Fall Risk Factors
- How to Modify Risk Factors
- Short and Long Term Action Steps



Growth in the Older Adult Population by Age Group Washington State

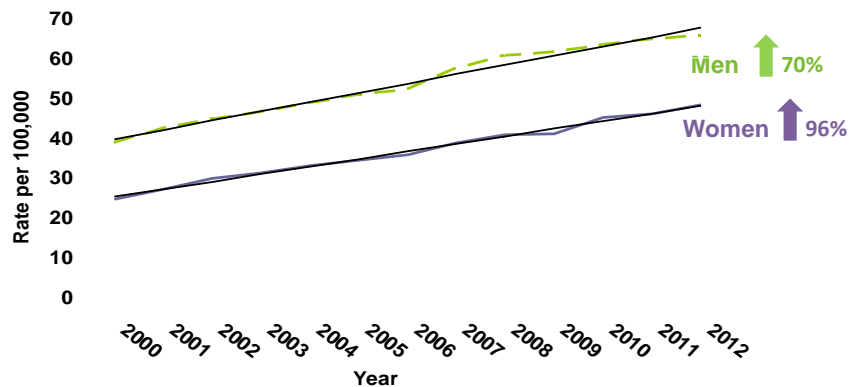


Falls in United States

- **1 in 3 of Americans aged 65 + falls each year.**
- Leading cause of fatal and non-fatal injuries for those 65 and older.
- Every 15 seconds, an older adults is **treated in the Emergency room.**
- Every 29 minutes, an older adult **dies following a fall.**



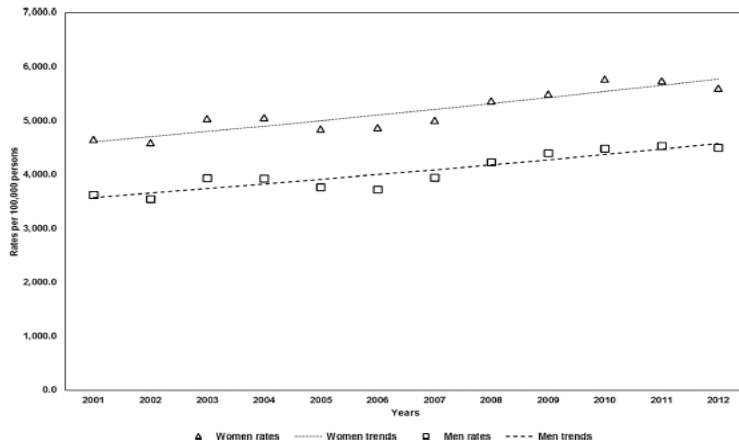
Age-Adjusted Fall Death Rates, by Sex, for Adults Aged 65+ (2000-12)



NCHS, Vital Records, 2000-2012



Age-Adjusted Fall Injury Rates, Adults 65+ Treated in EDs (2001-12)



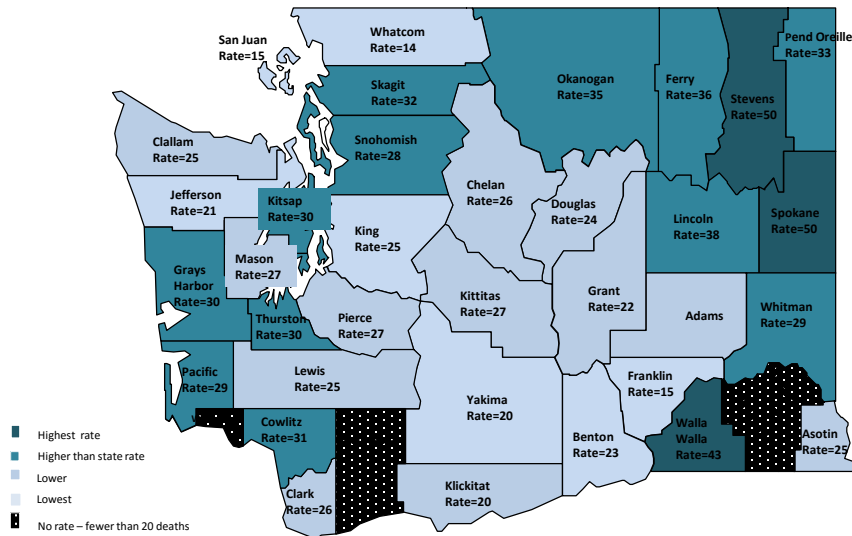
Falls in Washington State

2015 data

- Washington population 65 + 1,027,664.
- Washington fatalities 850
- Daily deaths > 2 /day
- Washington hospitalizations 12,600
- Daily hospitalizations 34



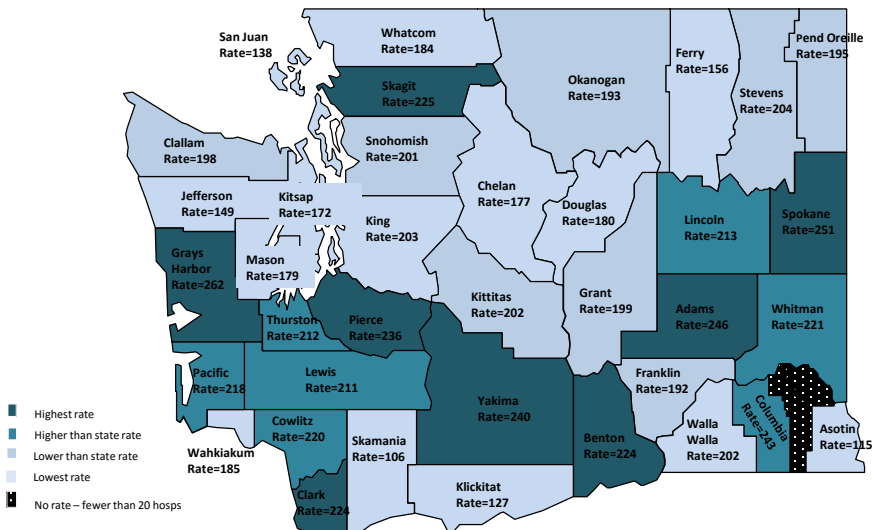
Fall Death Rates By County of Residence 2008-2012, Age 65+ years



Source: Washington State Department of Health, Death Certificates



Fall Hospitalization Rates By County of Residence 2008-2012, Age 65+ years

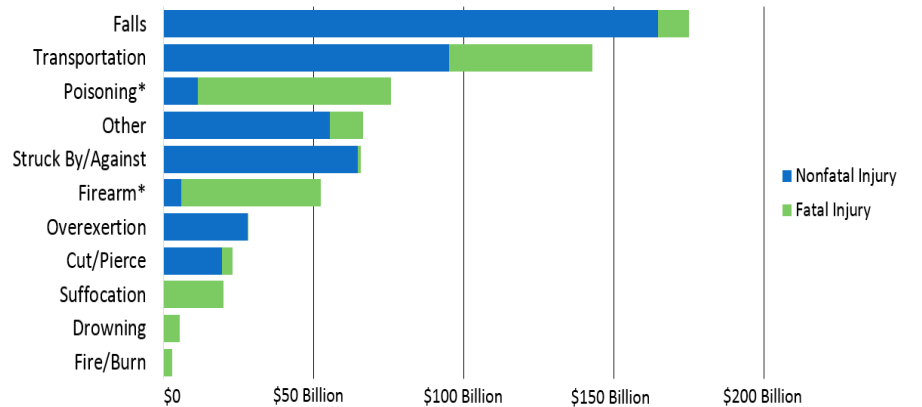


Source: Washington State Department of Health, Hospital Discharge Data



Injuries Cost the U.S. \$671 Billion in 2013

Falls and transportation-related injuries account for the majority of nonfatal injury costs



Medical and work loss costs of injury by mechanism (cause), United States, 2013

*Fatal poisoning includes deaths from drug poisoning.

Florence C. Simon T. Haegerich T. et al. Estimated Lifetime Medical and Work Loss Costs of Fatal Injury, United States 2013. *MMWR* 2015;64(38).

Florence C. Haegerich T. Simon T. et al. Estimated Lifetime Medical and Work Loss Costs of Emergency Department Treated Nonfatal Injuries, United States 2015. *MMWR* 2013;64(38).



CDC: Disseminating Fall Prevention Best Practices



For every **5,000** health care providers who adopt STEADI, over a 5-year period as many as:

- **6 million** more patients could be screened,
- **1 million** more falls could be prevented; and
- **\$3.5 billion** more in direct medical costs could be saved.

STEADI
Stopping Elderly
Accidents, Deaths & Injuries
www.cdc.gov/steady

<http://www.cdc.gov/steady/>



You can reduce the risk of falling:

- Identify patients at low, moderate, and high risk for a fall;
- Identify modifiable risk factors; and
- Offer effective interventions.


3 Questions to Ask

1. Have you fallen in the past year?
 2. Do you feel unsteady when standing or walking?
 3. Do you worry about falling?
- If your patient answers "yes" to any of these key screening questions, they are considered at increased risk of falling.




Fall Risk Checklist

Fall Risk Checklist		
Patient:	Date:	Time: AM/PM
Fall Risk Factor Identified	Factor Present?	Notes
Fall History		
Any fall in past year?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Worries about falling or feels unsteady when standing or walking?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Medical Conditions		
Problems with heart rate and/or rhythm	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Cognitive impairment	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Incontinence	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Depression	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Foot problems	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Other medical conditions (Specify)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Medications		
Any psychoactive medications, medications with anticholinergic side effects, and/or sedating OTC's (e.g., Benadryl, Tylenol PM)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
GAIT, Strength & Balance		
Timed Up and Go (TUG) Test ≤12 seconds	<input type="checkbox"/> Yes <input type="checkbox"/> No	
30-Second Chair Stand Test Below average score (See table on back)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4-Stage Balance Test Full tandem stance <10 seconds	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Vision		
Aquity <20/40 OR no eye exam in >1 year	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Postural Hypotension		
A decrease in systolic BP ≥20 mm Hg or a diastolic bp of ≥10 mm Hg or lightheadedness or dizziness from lying to standing?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Other Risk Factors (specify)		
	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	



Center for Disease Control and Prevention
 National Center for Injury Prevention and Control





Fitness Checks

<http://www.cdc.gov/steady/videos.html>

Patient: _____ Date: _____ Time: _____ AM/PM

The Timed Up and Go (TUG) Test

Purpose: To assess mobility

Equipment: A stopwatch

Directions: Patients wear their regular footwear and can use a walking aid if needed. Begin by having the patient sit back in a standard arm chair and clearly a line 1 meter or 10 feet away on the floor.

Instructions to the patient:

When I say "Go," I want you to:

1. Stand up from the chair
2. Walk to the line on the floor at your normal pace
3. Turn
4. Walk back to the chair at your normal pace
5. Sit down again

On the word "Go" begin timing

Stop timing after patient has sat back down and record.

Time: _____ seconds

An older adult who takes 12 seconds to complete the TUG is at high risk for falling.

Observe the patient's postural stability, gait, stride length, and speed

Circle all that apply from tentative pool: ☐ Loss of balance ☐ Short strides ☐ A little or no arm swing ☐ Headling off on walk ☐ Shuffling ☐ In line turning ☐ Not using assistive device properly

Notes: _____

For relevant articles, go to: www.cdc.gov/injury/STEADY

Patient: _____ Date: _____ Time: _____ AM/PM

The 4-Stage Balance Test

Purpose: To assess static balance

Equipment: A stopwatch

Directions: There are four progressively more challenging positions. Patients should not use an assistive device (cane or walker) and keep their eyes open.

Describe and demonstrate each position. Stand next to the patient, hold his/her arm and help them assume the correct foot position. When the patient is steady, let go, but remain ready to catch the patient if he/she should lose their balance.

If the patient can hold a position for 10 seconds without moving his/her feet or needing support, go on to the next position. If not, stop the test.



Instructions to the patient: I'm going to show you four positions. Try to stand in each position for 10 seconds. You can hold your arms out or move your body to help keep your balance but don't move your feet. Hold the position until I tell you to stop.

For each stage, say "Ready, begin" and begin timing.

After 10 seconds, say "Stop."

See next page for detailed patient instructions and illustrations of the four positions.

For relevant articles, go to: www.cdc.gov/injury/STEADY

Patient: _____ Date: _____ Time: _____ AM/PM

The 30-Second Chair Stand Test

Purpose: To test leg strength and endurance

Equipment:

- A chair with a straight back without arm rests (at least 17" high)
- A stopwatch

Instructions to the patient:

1. Sit in the middle of the chair.
2. Place your hands on the opposite shoulder crossed at the wrists.
3. Keep your feet flat on the floor.
4. Keep your back straight and keep your arms against your chest.
5. On "Go," rise to a full standing position and then sit back down again.
6. Repeat this for 30 seconds.

On "Go," begin timing

If the patient must use his/her arms to stand, stop the test. Record "0" for the number and score.

Count the number of times the patient comes to a full standing position in 30 seconds.

If the patient is over halfway to a standing position when 30 seconds have elapsed, count it as a stand.



Record the number of times the patient stands in 30 seconds.

Number: _____ Score: _____ See next page.

A below average score indicates a high risk for falls.

Notes: _____

For relevant articles, go to: www.cdc.gov/injury/STEADY



Stay Independent Self Assessment




Check Your Risk for Falling

Please circle "Yes" or "No" for each statement below.	Why it matters
Yes (2) No (0) I have fallen in the past year.	People who have fallen once are likely to fall again.
Yes (2) No (0) I use or have been advised to use a cane or walker to get around safely.	People who have been advised to use a cane or walker may already be more likely to fall.
Yes (1) No (0) Sometimes I feel unsteady when I am walking.	Unsteadiness or needing support while walking are signs of poor balance.
Yes (1) No (0) I steady myself by holding onto furniture when walking at home.	This is also a sign of poor balance.
Yes (1) No (0) I am worried about falling.	People who are worried about falling are more likely to fall.
Yes (1) No (0) I need to push with my hands to stand up from a chair.	This is a sign of weak leg muscles, a major reason for falling.
Yes (1) No (0) I have some trouble stepping up onto a curb.	This is also a sign of weak leg muscles.
Yes (1) No (0) I often have to rush to the toilet.	Rushing to the bathroom, especially at night, increases your chance of falling.
Yes (1) No (0) I have lost some feeling in my feet.	Numbness in your feet can cause stumbles and lead to falls.
Yes (1) No (0) I take medicines that sometimes makes me feel light-headed or more tired than usual.	Side effects from medicines can sometimes increase your chance of falling.
Yes (1) No (0) I take medicine to help me sleep or improve my mood.	These medicines can sometimes increase your chance of falling.
Yes (1) No (0) I often feel sad or depressed.	Symptoms of depression, such as not feeling well or feeling slowed down, are linked to falls.
Add up the number of points for each "yes" answer: If you scored 4 points or more, you may be at risk for falling. Discuss this brochure with your doctor.	
Total: _____	

This checklist was developed by the Greater Los Angeles VA Geriatric Research Education Clinical Center and affiliates and is a validated fall risk self-assessment tool (Rubenstein et al. / Safety Res. 2011;42(3):492-499). Adapted with permission of the authors.

Your doctor may suggest:

- Having other medical tests
- Changing your medicines
- Consulting a specialist
- Seeing a physical therapist
- Attending a fall prevention program




To Order This Brochure



Today:

- Enter in to the Question Pane Your:
 - Name
 - Agency
 - *Mailing* address
 - Telephone number
 - E-mail address

OR visit:

<http://here.doh.wa.gov/ed-materials/subjects/aging>



My Falls-Free Plan

My Falls-Free Plan		Name: _____	Date: _____
As we grow older, gradual health changes and some medications can cause falls, but many falls can be prevented. Use this to learn what to do to stay active, independent, and falls-free.			
Check "Yes" if you experience this (even if only sometimes)	No	Yes	What to do if you checked "Yes"
Have you had any falls in the last six months?			<input type="checkbox"/> Talk with your doctor(s) about your falls and/or concerns. <input type="checkbox"/> Show this checklist to your doctor(s) to help understand and treat your risks, and protect yourself from falls.
Do you take four or more prescription or over-the-counter medications daily?			<input type="checkbox"/> Review your medications with your doctor(s) and your pharmacist at each visit, and with each new prescription. <input type="checkbox"/> Ask which of your medications can cause drowsiness, dizziness, or weakness as a side effect. <input type="checkbox"/> Talk with your doctor about anything that could be a medication side effect or interaction.
Do you have any difficulty walking or standing?			<input type="checkbox"/> Tell your doctor(s) if you have any pain, aching, soreness, stiffness, weakness, swelling, or numbness in your legs or feet—don't ignore these types of health problems. <input type="checkbox"/> Tell your doctor(s) about any difficulty walking to discuss treatment. <input type="checkbox"/> Ask your doctor(s) if physical therapy or treatment by a medical specialist would be helpful to your problem.
Do you use a cane, walker, or crutches, or have to hold onto things when you walk?			<input type="checkbox"/> Ask your doctor for training from a physical therapist to learn what type of device is best for you, and how to safely use it.
Do you have to use your arms to be able to stand up from a chair?			<input type="checkbox"/> Ask your doctor for a physical therapy referral to learn exercises to strengthen your leg muscles. <input type="checkbox"/> Exercise at least two or three times a week for 30 min.
Do you ever feel unsteady on your feet, weak, or dizzy?			<input type="checkbox"/> Tell your doctor, and ask if treatment by a specialist or physical therapist would help improve your condition. <input type="checkbox"/> Review all of your medications with your doctor(s) or pharmacist if you notice any of these conditions.
Has it been more than two years since you had an eye exam?			<input type="checkbox"/> Schedule an eye exam every two years to protect your eyesight and your balance.
Has your hearing gotten worse with age, or do your family or friends say you have a hearing problem?			<input type="checkbox"/> Schedule a hearing test every two years. <input type="checkbox"/> If hearing aids are recommended, learn how to use them to help protect and restore your hearing, which helps improve and protect your balance.
Do you usually exercise less than two days a week? (for 30 minutes total each of the days you exercise)			<input type="checkbox"/> Ask your doctor(s) what types of exercise would be good for improving your strength and balance. <input type="checkbox"/> Find some activities that you enjoy and people to exercise with two or three days/week for 30 min.
Do you drink any alcohol daily?			<input type="checkbox"/> Limit your alcohol to one drink per day to avoid falls.
Do you have more than three chronic health conditions? (such as heart or lung problems, diabetes, high blood pressure, arthritis, etc. Ask your doctor(s) if you are unsure.)			<input type="checkbox"/> See your doctor(s) as often as recommended to keep your health in good condition. <input type="checkbox"/> Ask your doctor(s) what you should do to stay healthy and active with your health conditions. <input type="checkbox"/> Report any health changes that cause weakness or illness as soon as possible.
The more "Yes" answers you have, the greater your chance of having a fall. Be aware of what can cause falls, and take care of yourself to stay independent and falls-free!			
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Risk Factors for Falls

Intrinsic

- Advanced Age
- Previous Falls
- Muscle Weakness
- Gait & Balance Problems
- Poor Vision
- Postural Hypotension
- Chronic Conditions
- Fear of Falling

Extrinsic

- Lack of stair handrails
- Poor stair design
- Lack of bathroom grab bars
- Dim Lighting or glare
- Obstacles & tripping hazards
- Slippery or uneven surfaces
- Psychoactive medications
- Improper use of assistive devices



What You Can Do To Prevent Falls

- Talk to your Doctor
- Strength and Balance Exercises
- Vision Check
- Home Safety



What You Can Do To Prevent Falls

- Vitamin D



- Medication Review



Washington State Department of
Health

Interventions *Fitness Programs*

- Gait and Balance Problems
- Fear of Falling
- Muscle Weakness



Washington State Department of
Health

Health Action Plan

- Short Term Goal
 - Identify factors that put patients at risk
 - Intrinsic conditions that can be affected by action
 - Sign up for strength & balance fitness class
 - Get your vision checked
 - Medication Review with Dr. or Pharmacist
 - Ask Dr. about Vitamin D supplements
 - See physician about chronic conditions



Health Action Plan

- Short Term Goal
 - Identify factors that put patients at risk
 - Some environmental (extrinsic) hazards
 - Furniture arrangement
 - Floors – too slick or changes in flooring
 - Lighting -- night light, too dim or bright, glare or distortion
 - Cords – vacuum cleaners, electrical devices
 - Clothing – too long, pants that touch the ground
 - Footwear – thick rubbery soles easily catch, socks without treads
 - See physical therapist to assist with Assistive device
 - Medication review for psychoactive medications



Reduce Falls Community Wide Efforts

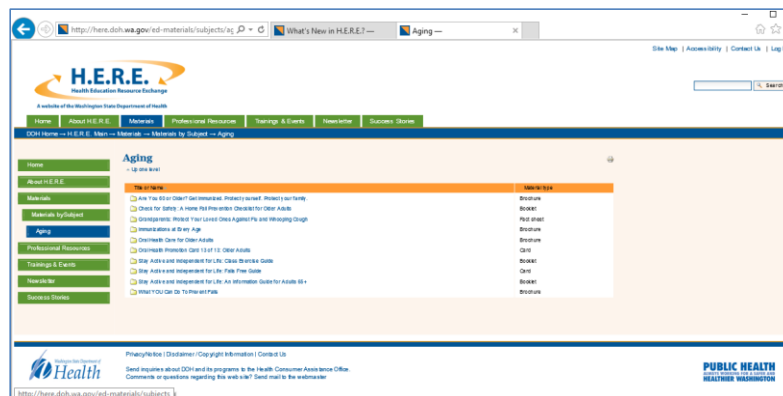
- Health Systems
- Health Insurance Plans
- Community programs
- Clinician education and referrals (STEADI)
- Aging Partners -- services, community health workers, volunteers, professional organizations, first responders
- Public awareness



Resources

Washington State's Dept. of Health website:

<http://here.doh.wa.gov/ed-materials/subjects/aging>



THANK YOU

Mary Borges
 Department of Health
 Older Adult Fall Prevention
 Program Manager
mary.borges@doh.wa.gov
 360-236-2861



Certificate of Completion

Fall Prevention

presented by Mary Borges
 WA State Department of Health
 Lacey, Washington

*Webinar aired on: July 14, 2016 in Lacey, Washington
 for Health Home Care Coordinators and Allied Staff*

Training Credit of 1 Hour

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